



UNITED STATES PATENT AND TRADEMARK OFFICE

mv

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,310	12/18/2001	David Ross Mathog		8215

7590

12/23/2003

David Ross Mathog
1215 Greenfield Avenue
Arcadia, CA 91006

EXAMINER

MARKS, CHRISTINA M

ART UNIT	PAPER NUMBER
----------	--------------

3713

4

DATE MAILED: 12/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/025,310

Applicant(s)

MATHOG, DAVID ROSS

Examiner

C. Marks

Art Unit

3713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 1 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 3713

DETAILED ACTION

Information Disclosure Statement

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

Figures 3B, 4B and 5 appear to have new matter that was not originally disclosed in the specification as filed. Applicant is invited to point out support for all parts of the drawings if it does exist.

Specification

The Examiner acknowledges the Applicant's attempt to correct the specification. However, the amendment filed 10 October 2003 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material, for example, which is not supported by the original disclosure is as follows:

- 1) The device maintains an integer variable that would transition between four allowed states (page 9, lines 13-16)
- 2) Description of Figures 3B, 4B and 5 that were newly added with amendment
- 3) FIGS 3B, 4B and 5

Art Unit: 3713

- 4) Reference numbers associated with FIGS 3B, 4B and 5
- 5) Definition of device state and transitions among four values (page 13, lines 3-8)
- 6) That the controller reads the desired device settings from configuration devices (page 13, line 14)
- 7) The controller uses the value of the device state to drive the display (page 13, lines 16-17)
- 8) The mean period and other calculations detailed on page 15, lines 6-13
- 9) Detailed description of newly added figures (page 16, lines 2-20; page 17; page 18, lines 1-9)
- 10) Detailed description of display state information (page 18, lines 10-21; page 19, lines 1-2)
- 11) Description of Remote controller (page 19, lines 3-11)
- 12) Information presented about device states in TABLE 2 (page 19, lines 12-13)
- 13) Mode descriptions of TABLE 2 (page 19, lines 14-18; page 20, lines 1-6)
- 14) Description of Communications Selector (page 20, lines 7-13)

Further, Applicant did not provide a statement that no new matter had been entered with the amendment.

If Applicant believe the above noted information is not new matter, the Applicant must point out by page and line number in the original specification where the support exists. Otherwise, Applicant is required to cancel the new matter in the reply to this Office Action.

Art Unit: 3713

Claim Objections

The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Applicant is reminded that when new claims are added, they must begin with the next number above the previously highest numbered claim.

Thus, the Examiner acknowledges Applicant's attempt to cancel claim 1 by an attempt to replace it with the new claims. However, to comply with the requirements, the Examiner has renumbered the newly presented claims from 2-21. Previous claim 1 has been withdrawn in order for the Examiner to acknowledge the intention of the Applicant to do so. Claim 1 is withdrawn and claims 2-21 are thus new claims.

Further, claim 10 is objected to as the method steps should read steps (a) – (d) not (b), (d), (e), and (f).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter that was not described

Art Unit: 3713

in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As explained above, the amendment consists of a number of new matter situations. For example, claim 1 recites the logical equivalence of an integer number, which appears to be a new matter situation in comparison to information previously presented. Such a feature is not supported by the original disclosure. Further, claim 1 recited a plurality of configuration devices that appear to be new matter in comparison to information previously presented as such features do not appear to be supported by the original disclosure.

Further, it does not appear to be disclosed in the specification that (claim 12) a remote control can substitute for the local dials, (claims 5-6) the device can display the state with alphanumeric or symbolic displays, (claim 7) sounds are used to present the state, (claim 8) synthesized speech is used to present the state, (claim 8) recorded speech is used to present the state, (claims 14 and 15) the ability to transmit to a receiver worn on the athlete, (claims 12 and 16) the controller means are separate from the display means, (claim 17) different portions of the device are presented on specific remote display units, (claim 18) remote display units are activated sequentially by a localized state device in a one, two or three-dimensional pattern, (claims 19 and 20) the device communicates from a coach or other player through relayed field devices to display units, (claim 12) a remote control comprises the configuration device, (claim 13) the remote controller does maintenance, (claim 16) remote controller causes more than one display to show the same state, (claim 17) remote controller causes more than one display to show different part of the device state, (claim 18) multiple display units correspond signals moving in one-three dimensional paths, (claim 19) the remote control has a speaker and a microphone to provide verbal communication to the display unit, (claim 20) verbal communication input into the remote can be displayed on the display.

Art Unit: 3713

The Examiner invites the Applicant to point out such detailed support for the above limitations if it does exist.

Claim 13, 16-17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The language presented in claim 13 is indefinite in that a skilled artisan would not be able to adequately ascertain what is meant by "a remote controller that is demoted to a remote control and maintenance of the device state transferred to the display controller." The language of the limitation is not presented in a manner that would be understood by a skilled artisan and is thus indefinite.

Regarding claims 16-17 the language is not supported by the parent claim. Both of these claims refer to multiple displays when the parent requires only one. Further, regarding claim 17 a skilled artisan would not be able to ascertain what is meant by the display unit showing a different part of the device state as it has previously been claimed by the applicant that the display indicates states, not parts.

For these reasons relating to 35 U.S.C. 112 outlined above that present indefiniteness and lack of support, the claims will be evaluated as best possibly understood by one of ordinary skill in the art.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 3713

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2-13, 15-18, and 21, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Eger (US Patent No. 5,812,239).

Eger discloses a device for introducing state changes into athletic activities (Abstract). The device includes a time varying device state (Column 3, lines 10-12) that allows lights to be sequentially activated (Abstract). One of ordinary skill in the art understands that such lights are activated based on timing established by the processor. Further, Eger does not explicitly disclose that these time variants are logically equivalent to an integer comprised of one bit; however, one of ordinary skill in the art would understand a variable would be required for the processor to decide which of the lights to be sequentially activated. The manner in which one controls this variable including one-bit integers would be a design choice obvious to one of ordinary skill in the art. Obvious motivations for using an integer would be the simplicity required to program integers, thus simplifying the program used by the micro controller to control the lights. Eger further discloses a display that translates the state to a form interpretable by the athlete (FIG 2) as the athletes can interpret the state based on the LED lit. Eger discloses that the devices can be sequentially activated and one of ordinary skill in the art understands that sequentially activation can comprise a number of different configurations.

Art Unit: 3713

Eger discloses that there are a number of different programs for operation of the LED thus a plurality of configuration devices to control the manner of variation (Column 4, lines 49-55) are used. As disclosed above, Eger also has a controller that sets the configuration and does so sequentially in order to maintain the device state and communicates the state to the display (Abstract). Eger also discloses a program that allows random variation for the LEDs (Column 4, lines 49-55). The device of Eger is constructed with a durable case (FIG 2) that can withstand athletic activity (Abstract). Eger does not explicitly disclose a power source; however, one of ordinary skill in the art would completely understand that such a device would be inherent to powering the LEDs. The type of power source would be a design choice, made to fit the needs and desires required by a skilled artisan.

Regarding claim 3, as stated above the controller is a micro-controller (Abstract).

Regarding claim 4, the display comprises a set of LEDs (Abstract). Eger also discloses that the LEDs can be of different colors (Column 3, lines 18-22).

Regarding claims 5-8, Eger discloses the display to be LEDs. However, the usage of other types of displays including symbolic, alphanumeric, and aural would be obvious design choices to one of ordinary skill in the art. Eger discloses the device is intended to train athletes and their response time. Substituting other means and methods besides LEDs to accomplish this goal would be obvious to one of ordinary skill in the art. Motivations exist to do this in order to more extensively train the athletes by incorporating a display that requires a more cognizant state to practice. By requiring the user to interpret a symbol, read an instruction, or process a sound, the training of the athlete would be greatly enhanced as more aspects of athletic competition would be addressed and would thus provide more thorough and complete training than a simple LED would.

Art Unit: 3713

Regarding claims 9-10, as stated above Eger does not explicitly disclose the power source and the design choice of such would be obvious to a skilled artisan. Motivation for using a line power would be that it would be reliable in that one would not have to worry about the battery running out. However, alternatively one might be motivated to use a battery in order to allow the device to be more portable than would be allowed with line power.

Regarding claim 11, the method of using the Eger device includes the processor setting the manner in which the device is to be varied in time and uses a random variation to determine the transitions. Further, the device displays to one or more users the context of the current state in order to allow the users to react to the state information as appropriate (Abstract; discussion above).

Regarding claims 12 and 13, as stated above the device has a display controller. Further the device axiomatically has transmitter receivers to provide the communication required between the display and the micro controller (Columns 4-6). The display unit axiomatically has a transmitter receiver as it sends information about the user back to the micro controller and as is known in the art will have a power source (Columns 4-6). A durable case is also disclosed (Abstract). Though Eger does not disclose a remote controller to interact with the device to control state variance, a skilled artisan would find such a device obvious as remotes are notoriously well known in the art as a means to provide input control to devices. One would be motivated to provide such a device in order to allow the user to control timing parameter programs, disclosed by Eger, to fit their needs in order to personalize the device to provide a more personalized and beneficial training to the user that is customized to meet the users needs while at the same time incorporating a mobile and simple input method.

Art Unit: 3713

Regarding claim 15, the device is attached to a piece of athletic equipment, as it represents a punching area in one embodiment; therefore, it serves as the piece of athletic equipment by being attached in a manner that the user can hit it (Column 5, lines 30-45).

Regarding claims 16-18 and 21, Eger discloses a single display unit. However, one of ordinary skill in the art would understand that a number of display units could be run off the same controller such as in a server setup. A skilled artisan would be motivated to do this for the purpose of training more than one athlete or for the purpose of more intensely training a single athlete. By incorporating more than a single device, the system could work to thoroughly train a whole team or over an entire playing field while reducing the cost required by multiple processors. Further, the program used by the controller for setting the manner for display on each device would be a design choice. One would be motivated to have all devices show the same state in order to allow the coach to more readily assess the athletes instantaneously. However alternate motivation for having the displays show different states would be that the athletes could not watch each other, thus reducing the possibility that an athlete does not receive a full workout. As stated above, the LEDs are programmed to be able to illuminate sequentially randomly and from FIG 2 a skilled artisan understands this to be in many dimensions.

Claims 14 and 19-20, as best understood, are rejected under 35 U.S.C. §103(a) as being unpatentable over Eger (US Patent No. 5,812,239) in view of Root et al. (US Patent No. 6,013,007).

The manner and construction in which the device is implemented is a non-critical design choice with alternatives to Eger obvious to one of ordinary skill in the art. The purpose of Eger is to train reactions of the user. Thereby, allowing other means and methods of construction for

Art Unit: 3713

realizing this intention via other medians would be obvious to skilled artisans. For example, the display device could be worn by the user, instead of seen by the user, in order to incorporate different body parts and different training methods.

Root et al. disclose a wearable device that provides audio information to the user while the user is training (Abstract). Root et al. further teaches the exclusively visual means of conveying information employed by current devices requires frequent visual interaction, compromising the safety and concentration of the user, making them incompatible with exercise activities.

Therefore by applying the teachings of Root et al. one of ordinary skill in the art would be motivated to adjust the Eger device to become mobile and wearable. This would allow the system of Eger to audibly present information. By using a mobile wearable device and following the teachings of Root et al., the user could also train while running as opposed to just standing still. For example, by allowing the user to wear the device, legs, arms, and elbows could also be trained. Root et al. provide motivation for using the method to train athletes in order to improve concentration while at the same time not departing from the goal of Eger: the need and importance of reaction time training. Thus, any skilled artisan would be motivated to incorporate these teachings of Root et al. in order to carry out the intention of Eger while providing a better alternative for information presentation and training and not departing from the scope of Eger.

Further, Root et al. disclose that verbal communication can be provided to the athlete remotely (Abstract). Though Root et al. do not disclose the manner in which the audio information is input, one of ordinary skill in the art understands that using a microphone and speaker to input the information would be obvious to a skilled artisan as such inputs are notoriously well known in the art. The location of the microphone is also a design choice. One would be motivated to incorporate the microphone into the remote as it is already part of the

Art Unit: 3713

system and therefore no additional hardware would be needed. Further, one would be motivated to output the verbal communication to assist and motivate the athlete to improve their performance without any visual distractions (Column 1, lines 63-66), as taught by Root et al.

Response by Applicant

If Applicant wishes to continue to prosecute this patent application, applicant must reply in writing. It would be of great assistance to the Office if all incoming papers pertaining to a filed application carried the following items:

1. Serial number (checked for accuracy).
2. Group art unit number (copied from filing receipt or most recent Office Action).
3. Filing date.
4. Name of the examiner who prepared the most recent Office action.
5. Title of invention.
6. Name of Applicants.

Applicant's reply should identify the Office Action the amendment is in response to by its mailing date or paper no. and must specifically request further examination and reconsideration.

Applicant or Applicant's registered representative must sign the reply.

In a reply to an Office Action, Applicant can amend the specification, drawings and claims to overcome objections and rejections as well as argue against any position taken by the Examiner. Applicant's arguments and other pertinent comments should appear under the heading "REMARKS". In Applicant's remarks, applicant must point out each error, if any, applicant believes the Examiner has made in the current Office Action and/or how any amendments Applicant has made to the specification, drawings and claims overcome the Examiner's objections and rejections. *Applicant must respond to each and every ground of rejection and objection raised in the current Office Action.*

To overcome the objection and rejection for lack of an enabling disclosure, Applicant can argue that the holding of non-enabling by the Examiner is in error. To be persuasive, however,

Art Unit: 3713

such ***an argument must point out where, in the specification as originally filed, the specification provides the necessary detailed disclosure for supporting the claimed invention.*** Alternatively, the Applicant could rebut the Examiner's holding of non-enabling by submitting evidence that the disclosure as it now stands is sufficient to enable an artisan, of ordinary skill, to make and use the invention. Such evidence should take the form of patents or literature published before the filing date of Applicant's application. Alternatively, the evidence could take the form of one or more affidavits by skilled in the art, stating facts, and on the basis of their knowledge and skill, establish that, on or before the filing date of Applicant's application, one of ordinary skill in the art could make and use the claimed invention from reading the specification without undue experimentation.

In a response in which Applicant intends to overcome a prior art rejection, Applicant may submit amendments to the claims along with arguments and remarks or rely solely on arguments. A general statement that the claims are patentable will not be sufficient to overcome a rejection. The Patent Rules require Applicant to specifically point out the claim language that unobviously distinguishes the claimed invention over the prior art cited in the Examiner's rejection.

Applicant can amend the specification and drawings by sending the Office a signed letter directing the Office to make the specified alterations. Applicant must specify the exact words to be stricken or added and the precise point in the specification (page and line number) where the changes are to be made by the amendment. Under no circumstances may an amendment introduce new subject matter to the specification, drawings or claims. New claims may be submitted but must be numbered sequentially with the last numbered claim currently pending. As per 37 C.F.R. § 1.121(a), Applicants may amend claims by specifically identifying the exact

Art Unit: 3713

word or words to be entered or stricken. There are some restrictions, see 37 C.F.R. § 1.121(c) below:

A particular claim may be amended in the manner indicated in paragraph (a) of 37 C.F.R. § 1.121 to the extent of corrections in spelling, punctuation, and typographical errors. Additional amendments in this manner will be admitted provided the changes are limited to: (1) deletions and/or (2) the addition of no more than five words in any one claim. Any amendment submitted with instructions to amend particular claims but failing to conform to the provisions of paragraphs (b) and © of 37 C.F.R. § 1.121 may be considered nonresponsive and treated accordingly.

Lengthy amendments to the claims should be made in accordance with 37 C.F.R.

§ 1.121(b) which states:

Except as otherwise provided herein, a particular claim may be amended only by directions to cancel or by rewriting such claim with underlining below the word or words added and brackets around the word or words deleted. The rewriting of a claim in this form will be construed as directing the cancellation of the original claim; however, the original claim number followed by the parenthetical word "amended" must be used for the rewritten claim. If a previously rewritten claim is rewritten, underlining and bracketing will be applied in reference to the previously rewritten claim with the parenthetical expression "twice amended", "three times amended", etc., following the original claim number.

If Applicants submit a rewritten claim, it must be identified by the original claim number followed by the parenthetical word "amended", and words inserted should be underlined and words to be deleted should be in brackets [like this]. Additionally the applicant is required to submit a copy of the rewritten claim without any editing marks.

Art Unit: 3713

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Marks whose telephone number is (703)-305-7497. The examiner can normally be reached on Monday - Thursday (7:30AM - 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teresa J Walberg can be reached on (703)-308-1327. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-1148.



cmm
December 17, 2003



MICHAEL O'NEILL
PRIMARY EXAMINER